JANUARY 2014 WEATHER SUMMARY
FOR THE CENTRAL CALIFORNIA INTERIOR

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January began with an upper-level ridge of high pressure over the central California interior. This ridge persisted over the region for much of the first two-thirds of the month, with high temperatures several degrees above normal. The ridge kept a dry airmass in place, resulting in very low relative humidities in the mountains and foothills. For the first time in memory, Red Flag Warnings were issued for the Southern Sierra Nevada and Tehachapi Mountains in January.

An offshore wind pattern developed over the central California interior on January 5th. Gusty southeast winds funneled through the Grapevine into the far south end of the San Joaquin Valley on the 5th, and again on the 8th of January. A gust to 57 mph was recorded at the base of the Grapevine on January 5th. Gusts to around 45 mph were reported at Bird Spring Pass and near Mojave during the early morning hours of January 8th.

The only break in the pattern was an upper-level short-wave that moved through California on January 11th. This disturbance brought isolated showers to the Sierra Nevada and foothills of Madera and Mariposa Counties, and Yosemite National Park. Rainfall amounts were light, generally only a few hundredths of an inch, and no station reported over a tenth of an inch. Ahead of the system, clouds moved over the region and pushed into the Valley-facing passes and canyons of the Tehachapi Mountains. The visibility at Tehachapi Municipal Airport fell to less than a quarter mile during the morning of January 10th.

The system also brought gusty winds to the region, both with and behind the short-wave. Gusts to around 50 mph developed over the Kern desert during the evening of January 11th. Winds on the 12th gusted to 57 mph at Bear Peak, and to 46 mph at Cache Creek. A wind gauge at Bird Springs Pass recorded a gust to 64 mph early in the morning of January 12th.

The cold airmass knocked Fresno's high temperature to near normal on January 12—54 degrees—but temperatures quickly rebounded to 63 degrees the next day. The period January 16th through the 22nd saw record or near-record high temperatures in the central and southern San Joaquin Valley for six consecutive days.

One consequence of the dry airmass was that despite the unseasonably warm afternoon high temperatures, strong radiational cooling allowed overnight lows to fall to near normal. Another consequence was that while some fog developed in January, it was usually short-lived and

patchy. The lowest visibilities typically were around and after sunrise, when visibilities as low as 200 feet were reported.

The center of the upper-level ridge moved over the Pacific Northwest coast on January 22nd. An upper-level disturbance dropped down the east side of the ridge into the Great Basin on the 23rd. This disturbance generated mid- and high-level clouds that moved westward over the Southern Sierra Nevada due to the clockwise circulation around the ridge center. These clouds produced light precipitation over the mountains and foothills as far south as Sequoia National Park, and sprinkles were reported in Clovis (although nothing fell at the Fresno-Yosemite International Airport).

The main weather story on January 23rd-24th was the strong offshore flow that developed over southern California. Easterly winds over the Tehachapi Mountains and the south end of the Sierra Nevada funneled through the favorably-oriented passes and canyons, creating gusts to around 55 mph at the base of the Grapevine and to 44 mph at Meadows Field in Bakersfield. Before the event ended, gusts to around 70 mph had occurred in the Tehachapi Mountains and to 59 mph in the south end of the San Joaquin Valley.

The airmass dried and warmed as it descended through the passes, dropping relative humidities down into single digits in parts of the far southern San Joaquin Valley. The combination of very low humidities and strong gusts prompted the issuance of a Red Flag Warning for the Kern County portion of the San Joaquin Valley and the adjacent valley-facing mountain slopes. This was the first time since record began that a Red Flag Warning was issued for any part of the central or southern San Joaquin Valley in January.

The warm downsloping winds gave Bakersfield back-to-back record high temperatures on January 23rd and 24th. The high on the 23rd was 79 degrees (old record was 77, set in 1970), and the high on the 24th was again 79 (old record was 77, set in 1946). Fresno had a high of 78 degrees on January 24th. This not only set a record high for the date, but also tied the record high temperature for the month (last set on January 28th, 1986).

The clouds lingered over the San Joaquin Valley through the night of January 24th-25th. This kept the airmass over the south end of the Valley very warm overnight. Bakersfield's low for the 24th was 68 degrees. This was both the record high minimum for the date (old record: 53 in 2009) and the record high minimum for the month (old record: 62 on January 13th, 1980).

Record heat continued the next few days. Fresno had a record high of 75 degrees on January 25th, breaking the old record of 70 degrees set in 2009 and 1936. Fresno had another record high temperature the next day, for its ninth day with a high of 70 degrees or greater. This broke the old record of eight 70+ degree days for January, set in 1948.

Bakersfield had a record twelve days at 70 or above in January 2014. The old record was eleven days, also set in 1948.

The weather changed beginning the evening of January 29th as the first storm in over seven weeks reached the central California interior. Rain and mountain snow moved into the northern half of the region during the late evening of the 29th, spread south through the 30th and tapered off the last day of the month. The storm brought wind gusts as high as 50 mph to the mountains and deserts and the first measurable rain since December 7th to the San Joaquin Valley. Fresno broke its driest start to a calendar year at 28 days; the previous record had been 21 days, set in 1903. Bakersfield's dry start ended at 29 days, just breaking the old record of 28 days, set in 1963.

The average high temperature for January at Fresno was 12 degrees above normal, and Bakersfield was 11.3 degrees above normal. However, the very dry, stable airmass over the region allowed for strong radiational cooling most nights. The average low temperatures for Bakersfield and Fresno were less than two degrees above normal.

The well above normal high temperatures more than offset the near-normal lows. January 2014 was the second warmest January on record for both Bakersfield and Fresno.

THE 5 WARMEST JANUARIES ON RECORD
/AVERAGE TEMPERATURE IN DEGREES FAHRENHEIT/

	BAKERSFIELD	FRESNO
1.	54.8....1978	53.6....1986
2.	*54.2....2014*	*53.2....2014*
3.	54.0....1970	51.9....1995
4.	53.6....1995	51.9....1909
5.	52.8....1986	51.4....1978
	52.8....1980	

THE 10 DRIEST YEARS ON RECORD
/RAINFALL IN INCHES/

	BAKERSFIELD	FRESNO
1.	TRACE...1972	TRACE...1948
2.	0.01....2003	0.04....1976
3.	0.01....1948	0.08....1928
4.	0.05....1984	0.13....1991
5.	0.05....1976	0.15....1984
6.	0.06....1976	0.20....1947
7.	*0.12....2014*	0.28....1946
8.	0.12....1963	0.34....1889
9.	0.16....1989	0.37....1972
10.	0.18....1924	0.40....2003
		0.40....1971
		0.40....1919
		0.40....1887
26.		*0.57....2014*
		0.57....1904